

# SMART ENERGY PRODUCTS HEAT PUMPS - ALL-IN-ONE



## EMERALD ALL-IN-ONE HEAT PUMP 220L, 270L WITH OPTIONAL HEATER

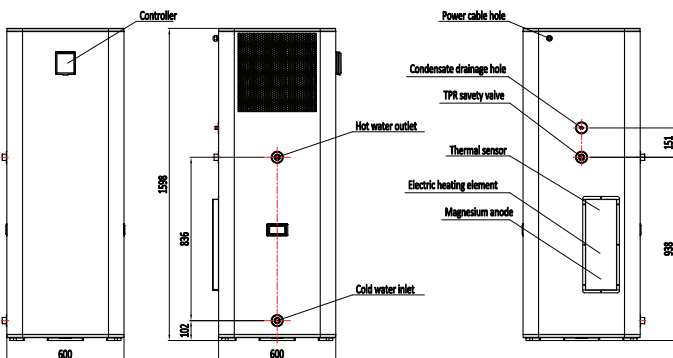
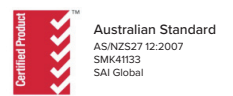
Emerald's all-in-one heat pumps have an optional built-in electric heater to boost the hot water supply when needed. The highly efficient DC inverter technology prolongs the lifetime of the componentry and produces less noise.

The all-in-one heat pump is designed for optimal performance in both residential and commercial settings. With a low Global Warming Potential (GWP) this heat pump delivers a high certificate yield when used in a commercial environment.

Fitted with a Wi-Fi chip this heat pump can be easily connected to the Emerald EMS app for smart control via mobile phone.

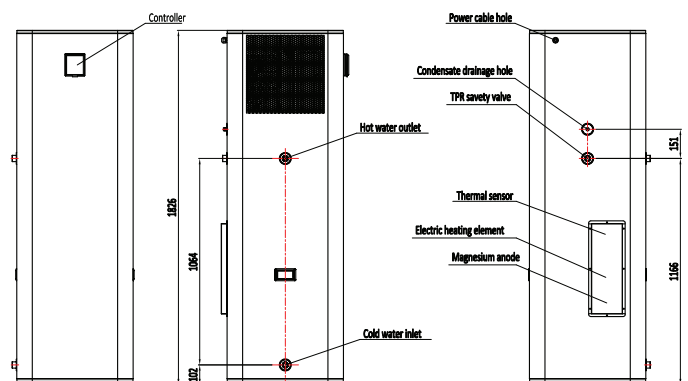
### FEATURES

- Optional built-in electric heater as backup
- Stylish design
- R290 hydrocarbon which is an efficient refrigerant with a low Global Warming Potential (GWP)
- High efficiency DC inverter technology used
- Wi-Fi enabled for connection to the Emerald EMS app for smart control and easy troubleshooting
- Silent mode
- Holiday mode



EE-HWS-A1-220E(-1)

(The electric heating element is not included in EE-HWS-A1-220)



EE-HWS-A1-270E(-1)

(The electric heating element is not included in EE-HWS-A1-270)

# SMART ENERGY PRODUCTS

## HEAT PUMPS - ALL-IN-ONE

### AUSTRALIAN ENERGY SAVING SCHEMES

Australian federal, state and territory governments have established energy-efficiency schemes to incentivise the adoption of smart-technology solutions to help reduce energy usage and the carbon footprint of businesses and households across the country.

Emerald Planet works closely with government agencies to ensure our products are at the forefront of energy-efficient technology, and aligned to the benchmarks set by the energy-efficiency schemes across Australia. Our hot water heat pumps are approved for installation within these government schemes.

### HIGH SMALL-SCALE TECHNOLOGY CERTIFICATES (STCS)

Air source Heat Pumps are eligible for Small-Scale Technology Certificates (STCs) to encourage the installation of heat pump water heaters.

STC certificates can be traded in the Australian market - the higher the STC value the more money can be exchanged. 1 STC means 1MWh can be saved in 10 years. The higher the STC value, the more efficient the unit. The STC values are determined by the by Australia's different temperature zones.

Heat Pump	All-in-one	All-in-one	All-in-one	All-in-one
Size	220	270	220E	270E
Model No	EE-HWS-A1-220 EE-HWS-A1-220-1	EE-HWS-A1-270 EE-HWS-A1-270-1	EE-HWS-A1-220E EE-HWS-A1-220E-1	EE-HWS-A1-270E EE-HWS-A1-270E-1

CERTIFICATE VALUES																				
Residential Certificates	Z1	Z2	Z3	Z4	Z5	Z1	Z2	Z3	Z4	Z5	Z1	Z2	Z3	Z4	Z5	Z1	Z2	Z3	Z4	Z5
STCs	22	21	26	28	28	21	20	25	27	27	22	21	26	28	28	21	20	25	27	27
ESCs (D17)			45		43			44		42			45		43			44		42
VEECs (1D)				19	18				18	18				19	18				18	18

Commercial Certificates (-1)	Z1	Z2	Z3	Z4	Z5	Z1	Z2	Z3	Z4	Z5	Z1	Z2	Z3	Z4	Z5	Z1	Z2	Z3	Z4	Z5
STCs	20	20	24	26	25	20	19	24	25	24	20	20	24	26	25	20	19	24	25	24
ESCs (F16)			110		82			113		79			110		82			113		79
VEECs (44B)				53	46				51	43				53	46				51	43



\*All certificates have been calculated for the dates between the 1st Feb 2023 – 31st Jan 2024

\*VEEC's & ESC's Commercial certificates have been calculated when installing a new water tank and replacing an electric resistance boiler/ heater of a 3.0 kW capacity or greater. For residential installations, the existing system size is not included in the calculations

\*STC's, ESC's & VEECS certificates have been submitted to the CER & VEU and waiting for final approval

# SPECIFICATIONS

EE Model (Residential)	EE-HWS-A1-220E	EE-HWS-A1-220	EE-HWS-A1-270E	EE-HWS-A1-270
EE Model (Commercial)	EE-HWS-A1-220E-1	EE-HWS-A1-220-1	EE-HWS-A1-220E-1	EE-HWS-A1-220-1
Power supply	220V ~ 240V/50HZ/60HZ/1Phase			
Water Tank Volume	220L		270L	
Optional Running Modes	Standard / Silent / Booster / E-Heater	Standard / Silent / Booster	Standard / Silent / Booster / E-Heater	Standard / Silent / Booster
Electric Heating Element	1.6KW	N/A	1.6KW	N/A
<b>Standard mode (Heat pump only)</b>				
Heating Capacity	2.8KW		2.8KW	
Rated Input Power	0.56KW		0.58KW	
COP	4.94		4.82	
Recharge Rate Per Hour	58L/H		58L/H	
Noise Level	51dB		51dB	
<b>Silent mode (Heat pump only)</b>				
Heating Capacity	2.0KW		2.0KW	
Rated Input Power	0.44KW		0.44KW	
COP	4.6		4.6	
Recharge Rate Per Hour	43L/H		43L/H	
Noise Level	45dBA		45dBA	
<b>Booster mode (Heat pump+Electric heater)</b>				
Heating Capacity	5.2KW	3.6KW	5.2KW	3.6KW
Rated Input Power	2.4KW	0.8KW	2.4KW	0.8KW
COP	4.5	4.5	4.5	4.5
Recharge Rate Per Hour	112L/H	78L/H	112L/H	112L/H
Noise Level	56dB	56dB	56dB	56dB
<b>E-Heater mode (Electric heater only)</b>				
Heating Capacity	1.6KW	N/A	1.6KW	1.6KW
Rated Input Power	1.6KW	N/A	1.6KW	1.6KW
COP	N/A	N/A	N/A	N/A
Recharge Rate Per Hour	N/A	N/A	N/A	N/A
Noise Level	52dBA	52dBA	52dBA	52dBA
Max Current (under booster mode)	14A	5A	14A	5A
Refrigerant	R290 (400g)			
Compressor	Highly (Hitachi JV) / DC Inverter/ Rotary			
Fan Motor	DC Inverter			
Fan Type	Axial			
Expansion Valve	EEV			
Defrost	4-way valve			
Inner Tank	Enamel / 2.5mm tank wall / 3.0mm dome			
Inner Tank Design	Concave			
Tank Insulation	Polyurethane / 35mm-157mm			
Tank Protection	2 x Magnesium anodes			
Heat Exchanger	Microchannel			
Outer Casing	Galvanized painted sheet / White			
TPR valve	AVG / 850KPA			
Rated Outlet Water Temperature	55°C - 63°C			
Max Outlet Water Temperature	70°C			
Working range with element	-15°C - 43°C			
Working range without element	-7°C - 43°C			
IP Class	IPX4			
Electric Shock Proof	I			
Unpacked Dimension	600mm*600mm*1598mm	600mm*600mm*1598mm	600mm*600mm*1826mm	600mm*600mm*1826mm
Packed Dimension (outdoor unit)	670mm*670mm*1730mm	670mm*670mm*1730mm	670mm*670mm*1956mm	670mm*670mm*1956mm
Net Weight (outdoor unit)	118KG	118KG	136KG	136KG
Gross Weight (outdoor unit)	126KG	126KG	145KG	145KG

Above test results are given based on the test condition ambient 20°C/15°C, Water from 15°C - 55°C